



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,293	07/09/2001	Michael M. O'Toole	17586A USA	2795

7590 05/18/2004

The Whitaker Corporation
Suite 450
4550 New Linden Hill Road
Wilmington, DE 19808

EXAMINER

DOAN, JENNIFER

ART UNIT	PAPER NUMBER
----------	--------------

2874

DATE MAILED: 05/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/901,293

Applicant(s)

O'TOOLE ET AL.

Examin r

Jennifer Doan

Art Unit

2874

-- The MAILING DATE of this c mmunication appears n the cover sheet with the correspondenc address --
P riod for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 and 37-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-20 and 35 is/are allowed.
- 6) ☒ Claim(s) 21-34, 37-39 and 42-45 is/are rejected.
- 7) ☒ Claim(s) 40 and 41 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachm nt(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 0204.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Applicants' communication filed on February 26, 2004 has been carefully studied by the Examiner. The arguments advanced therein, considered together with the amendment made to the claims, are persuasive. In view of further search, however, and the consequent discovery of a relevant prior art document in the Information Disclosure citation, a new rejection is set forth below. This action is **not** made final.

Information Disclosure Statement

1. The prior art documents submitted by applicant in the Information Disclosure Statement filed on 02/26/2004, have all been considered and made of record (note the attached copy of form PTO-1449).

Specification

2. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 37-39 and 42-45 are rejected under 35 U.S.C. 102(b) as being anticipated by DeAndrea et al. (U.S. Patent 5,708,743).

Regarding claims 37-39 and 42-45, DeAndrea et al. disclose, Figures 3-5, a connector interface adapted to interconnect with a multi-fiber assembly having an x,y array of fibers (203); a plurality of OE devices (30) for converting between optical and electrical signals; an optical block comprising a unitary structure of an optically-clear moldable material comprising at least the following features: a plurality of first lenses adapted for interfacing with a multi-fiber array of said connector assembly, each first lens corresponding to a fiber in said multi-fiber array; a plurality of second lenses adapted to cooperate optically with said OE devices, wherein each second lens corresponds to a first lens and is not coaxial with said first lens; one or more reflective surfaces; wherein said first lenses, said second lenses and said reflective surfaces are configured to provide a plurality of optical paths in said optical block, each optical path comprising a first section between a particular first lens and a reflective surface and a second section between a corresponding second lens and said reflective surface, wherein said first sections are parallel (column 6, lines 37-67).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 21-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeAndrea et al. (as cited above).

Regarding claim 21, DeAndrea et al. disclose, Figures 3-5, a unitary structure of an optical-clear moldable material comprising at least the following features (column 12, lines 57-58); a plurality of first lenses adapted for interfacing with a multi-fiber array of a connector assembly, each first lens corresponding to a fiber in said multi-fiber array as shown in Figures 3-5.

DeAndrea et al. do not disclose a plurality of receptacles for receiving the OEDs. However, the receptacles are considered to be obvious, since it is commonly used in an optical communication system to accommodate an optical device. Such an element would advantageously provide a good protection for the optical device. Therefore, it

would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the DeAndrea's device with the receptacles. Doing so would obtain a good protection for the optical device.

Regarding claims 22-33, DeAndrea et al. disclose, Figures 2-3 and 6, the wherein said alignment member provides for x,y alignment; the alignment member is a structure which is adapted to cooperate with a corresponding structure on a mating cable assembly; the alignment structure is one of a pin or a pin receiving cavity adapted to receive said pin, and wherein said cooperating structure is the other of said pin or said pin receiving cavity; the first lens are located on an interface surface and said alignment member comprises pins extending from said interface surface, said pins being configured on said interface surface to cooperate with receiving pin cavities on said fiber assembly.

Regarding claims 34, DeAndrea et al. disclose wherein said OED are standardized to a particular lead frame configuration, said lead frame configuration being adapted to support lasers, LEDS, photodiodes or detectors (column 5, lines 20-30).

DeAndrea et al. disclose all the limitations of the claimed invention except for the receptacles. However, the receptacles is well known in the art use for helping in an optical connection and alignment. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Munoz-Bustamante's device with a receptacle. Doing so would supposedly build up a strong connection.

Allowable Subject Matter

8. Claims 40 and 41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 1-20 and 35 are allowed.

See the reason for allowance of the claims in the previous office action.

Conclusion

9. Applicants' arguments with respect to claims 1-35 and 37-45 have been considered but are moot in view of the new ground(s) of rejection. This action is **not** made final.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer Doan whose telephone number is (571) 272-2346. The examiner can normally be reached on Monday to Thursday from 6:00 am to 3:30 pm, second Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

Art Unit: 2874

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jennifer Doan

JD
May 14, 2004

Phan T. H. Palmer
PHAN T. H. PALMER
PRIMARY EXAMINER